

What is claimed is:

- 1 1. A method of forming a dielectric, comprising:  
2 forming a fluorine containing film on a substrate; and  
3 placing the substrate into a reaction chamber and exposing the fluorine  
4 containing film to a reducing plasma.
- 1 2. The method Claim 1, wherein the substrate is a silicon wafer, and the  
2 fluorine containing film is a substantially planar insulating layer.
- 1 3. The method of Claim 1, wherein the fluorine containing film has exposed  
2 sidewalls.
- 1 4. The method of Claim 3, wherein the fluorine containing film has a covered top surface.
- 1 5. The method of Claim 1, wherein the plasma is formed from a hydrogen  
2 bearing precursor gas and a carrier gas.
- 1 6. The method of Claim 5, wherein the hydrogen bearing precursor  
2 comprises  $\text{NH}_3$  gas.
- 1 7. The method of Claim 6, wherein the carrier gas comprises a gas selected  
2 from the group consisting of  $\text{N}_2$ , Ar and He.

SUB A2 1 8. The method of Claim 7, wherein the fluorine containing film comprises a  
2 material selected from the group consisting a-C:F, parylene AF4, carbon-doped  
3 SiOF, fluorinated organic polymers, fluorinated siloxane polymers, and SiOF.

Sub C1 1 9. The method of Claim 1, wherein the fluorine containing film comprises  
2 parylene-AF4.

SUB A3 1 10. A method of forming an interlayer dielectric in an integrated circuit,  
2 comprising:  
3 depositing a fluorinated material on a substrate;  
4 forming via openings in the fluorinated material; and  
5 exposing the fluorinated material to a hydrogen containing plasma.

1 11. The method of Claim 10, wherein the fluorinated material comprises  
2 SiOF.

Sub C1 1 12. The method of Claim 11, further comprising depositing a conductive  
2 material in the via openings.

SUB A4 1 13. The method of Claim 10, wherein the fluorinated material comprises  
2 parylene-AF4.

Sub C1 1 14. The method of Claim 13, further comprising depositing a hardmask layer  
2 over the parylene-AF4 prior to forming the via openings.

Sub  
C1  
Unit

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1 19. The interconnect structure of Claim 18, wherein the first material  
2 comprises an SiOF.

1 20. The interconnect structure of Claim 18, wherein the second material  
2 comprises a conductive material.

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